

$^9\text{Be}(\text{He},\text{p}) \quad \underline{\textbf{1959Hi69,1966Br18,1982Zw02}}$

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu		NP A880, 88 (2012)	1-Jan-2011

1959Hi69: $^9\text{Be}(\text{He},\text{p})$.1965Ol03: $^9\text{Be}(\text{He},\text{P } \gamma)$; deduced nuclear properties.1966Br18: ^{11}B , measured not abstracted; deduced nuclear properties.1967Co03: $^9\text{Be}(\text{He},\text{p})$ E=1-3 MeV, measured $\sigma(E_p, \theta)$. ^{11}B deduced levels J, π , L.1968Ea03: $^9\text{Be}(\text{He},\text{p}\gamma)$ E=3, 4 MeV, measured $\sigma(E_p, E_\gamma, \theta(\gamma))$. ^{11}B deduced levels, J, γ -width.1973Su07: $^9\text{Be}(\text{He},\text{p}\gamma)$ E=0.5-1.1 MeV, measured $\sigma(E)$.1977Ir01: $^9\text{Be}(\text{He},\text{p})$ E=14 MeV, measured $\sigma(\theta)$, proton polarization.1981Si03: $^9\text{Be}(\text{He},\text{p})$ E=14 MeV, measured $p(\theta)$. Dduced time-reversal invariance.1982Ha06: $^9\text{Be}(\text{He},\text{p})$ E=13.6 MeV, measured $p(\theta)$. Dduced No time reversal invariance violation.1982PoZZ, 1983Po13, 1984Po02: $^9\text{Be}(\text{He},\text{p})$ E=13-14.2 MeV, measured $\sigma(E_p)$, $\sigma(\theta)$, $\sigma(\theta)$ vs E.1982Zw02: $^9\text{Be}(\text{He},\text{p})$ E=38 MeV, measured $\sigma(E_p, \theta)$. ^{11}B deduced levels, widths, isospin purity, L, normalization factors. DWBA analysis.1983Le17: $^9\text{Be}(\text{pol. } ^3\text{He},\text{P})$ E=33 MeV and E=14 MeV, measured $\sigma(\theta)$, A(θ). Cluster transfer DWBA analysis.1983Ri01: $^9\text{Be}(\text{He},\text{p})$ E=14 MeV, measured polarization.1983Ro22: $^9\text{Be}(\text{pol. } ^3\text{He},\text{P})$ E=14 MeV, measured analyzing power vs θ . Dduced reaction mechanism, time reversal invariance validity.1984Tr03: $^9\text{Be}(\text{He},\text{p})$ E=13.6 MeV, measured proton polarization vs θ . Dduced No evidence for time reversal invariance violation.IT: from (1963Ol03) analysis of $^9\text{Be}(\text{He},\text{P } \gamma)$ and $^{10}\text{B}(\text{d},\text{P } \gamma)$. ^{11}B Levels

E(level)	T _{1/2}	L	Comments
0		0	E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds In (1975Aj01).
2124.3 9		0	E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds In (1975Aj01).
4443.4 18		0	E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds In (1975Aj01).
5018.7 23		0	E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds In (1975Aj01).
6741.1 30			E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds In (1975Aj01).
6790.9 31		1	E(level): from (1966Br18); also see (1959Hi69). L: see 1960 Hinds In (1975Aj01).
7285 10			E(level): from (1959Hi69). L: see 1960 Hinds In (1975Aj01).
7975 10			E(level): from (1959Hi69). L: see 1960 Hinds In (1975Aj01).
8553 10		0	E(level): from (1959Hi69). L: see 1960 Hinds In (1975Aj01).
8917 8	10 keV 10	0+2	E(level): from 8909 keV 10 (1959Hi69) and 8934 keV 15 (1982Zw02). L: see 1960 Hinds In (1975Aj01) and (1982Zw02).
9177 8		(1)+3	E(level): from 9175 keV 10 (1959Hi69) and 9183 keV 15 (1982Zw02). L: see (1982Zw02).
9264 8	10 keV 10	1+3	E(level): from 9264 keV 10 (1959Hi69) and 9265 keV 15 (1982Zw02). L: see (1982Zw02).
9877 12	104 keV 15	1	E(level): from 9860 keV 20 (1959Hi69) and 9887 keV 15 (1982Zw02). L: see (1982Zw02).
10265 25	168 keV 25	2	E(level): L: from (1982Zw02).
10337 20	123 keV 20	0+2	E(level): L: from (1982Zw02).
10580 20	122 keV 20	1+3	E(level): L: from (1982Zw02).
11254 20	110 keV 20	3	E(level): L: from (1982Zw02).
11437 20	103 keV 20	(0+2)	E(level): L: from (1982Zw02).
11588 30	180 keV 30	1+3	E(level): L: from (1982Zw02).
11889 20	204 keV 20	0+2	E(level): L: from (1982Zw02).
12563 20	202 keV 25	1	T=3/2 E(level): L: from (1982Zw02).
12920 20	155 keV 25	2	T=3/2 E(level): L: from (1982Zw02).

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$^9\text{Be}(\text{He},\text{p}) \quad 1959\text{Hi69,1966Br18,1982Zw02}$ (continued)

^{11}B Levels (continued)

E(level)	T _{1/2}	L	Comments
13137 40 14.40×10 ³	426 keV 40 261 keV 25	1+3 1+3	E(level): L: from (1982Zw02). T=1/2 & 3/2
14565 15 16437 20	<30 keV <30 keV	(1) T=3/2	E(level): L: from (1982Zw02). E(level): L: from (1982Zw02). T=3/2
17.69×10 ³	91 keV 25	(0+2) T=3/2	E(level): L: from (1982Zw02).
18.0×10 ³ 1	0.87 MeV 10	(1+3) T=3/2	E(level): L: from (1982Zw02).
19146 30	115 keV 25	3 T=3/2	E(level): L: from (1982Zw02).
21.27×10 ³ 5	300 keV 30	(1+3) T=3/2	E(level): L: from (1982Zw02).

$\gamma(^{11}\text{B})$

E _γ	I _γ	E _i (level)	E _f	E _γ	I _γ	E _i (level)	E _f	E _γ	I _γ	E _i (level)	E _f
1722	<1	6741.1	5018.7	3532	<1	7975	4443.4	5853	53 2	7975	2124.3
1771	<8	6790.9	5018.7	3539	9 1	8553	5018.7	6435	30 2	8553	2124.3
2178	<1	8917	6741.1	3899	<1	8917	5018.7	6740	72 2	6741.1	0
2265	7.5 10	7285	5018.7	4114	5 1	8553	4443.4	6790	65 8	6790.9	0
2297	28 2	6741.1	4443.4	4445	100	4443.4	0	6793	<1	8917	2124.3
2320	<1	4443.4	2124.3	4474	5.0 5	8917	4443.4	7286	87 2	7285	0
2347	<8	6790.9	4443.4	4616	<3	6741.1	2124.3	7978	47 1	7975	0
2840	5.5 10	7285	4443.4	4666	35 8	6790.9	2124.3	8556	56 2	8553	0
2895	16 2	5018.7	2124.3	5020	84 2	5018.7	0	8916	95 1	8917	0
2958	<1	7975	5018.7	5160	<1	7285	2124.3				

